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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,982	07/29/2003	Larry L. Bradford	ACA6114US2	7140
28249	7590	09/27/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/628,982	Applicant(s) BRADFORD ET AL.	
	Examiner Rabon Sergent	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 18-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on August 12, 2005 has been entered.

2. Newly submitted claims 18-21 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Inventions of claims 1-17 and claims 18-21 are related as product and process of use, respectively. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the flame retardant blend can be used in a materially different process, such as a process for making a different polymer, such as a polyester polymer.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18-21 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 5, 6, 8, and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 255381 in view of Hardy et al. ('035) and further in view of Sicken et al. ('100).

The primary reference discloses flame retardant blends comprising a polyorganophosphate and a polyhalogenated aromatic flame retardant. See page 3 of the primary reference.

5. Though the primary reference is silent with respect to the specifically claimed oligomeric organophosphates, the position is taken that the claimed oligomeric organophosphates were known flame retardants at the time of invention. This position is supported by the teachings of Hardy et al. In view of the structural similarities between the oligomeric organophosphates of the primary and secondary references, the position is taken that one would have expected them to have comparable flame retarding qualities. Therefore, it would have been obvious to replace the organophosphate of the primary reference with the organophosphate of the secondary reference, so as to arrive at the instant invention. It has been held that it is obvious to utilize a component for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244.

Furthermore, it has been held that it is obvious to substitute one equivalent for another. *In re*

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*Ruff*, 118 USPQ 343 (CCPA 1958). Additionally, the teachings within Sicken et al. are considered to render obvious the use of hydroxyl functional oligomeric phosphate flame retardants, since the flame retardant would have been chemically incorporated into the polymer.

6. The examiner has considered applicants' response; however, applicants have failed to adequately rebut the examiner's arguments concerning the similarities of the respective oligomeric organophosphorus compounds, in terms of structure and function. The examiner has acknowledged that the respective oligomeric organophosphorus compounds of the primary and secondary references are not identical. The argued presence of phosphonate groups is not considered to be sufficient to remove the rejection, absent a convincing argument or evidence that one would not have expected the respective oligomeric compounds to function essentially equivalently as flame retardants. Applicants' arguments fail to adequately address the fact that the references teach equivalent utilities of the oligomeric organophosphorus compounds and that the oligomeric phosphorus compound of EP 255381 does in fact contain phosphate groups. With respect to claims 13-17, the transitional language, "consisting essentially of", fails to distinguish the claims from the prior art of record, because applicants have not established that the argued additional components would have a material effect on the instant composition.

7. Claims 1, 2, 4, 6, 7, 9, 10, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biranowski ('200) in view of Hardy et al. ('035) and further in view of Sicken et al. ('100).

Biranowski discloses flame retardant blends, wherein the blends comprise an oligomeric organophosphonate and a halogenated phosphate ester. See column 3; column 5, lines 44+, and column 6, lines 1-24.

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8. Though the primary reference is silent with respect to the specifically claimed oligomeric organophosphates, the position is taken that the claimed oligomeric organophosphates were known flame retardants at the time of invention. This position is supported by the teachings of Hardy et al. In view of the similarities between the oligomeric phosphorus compounds of the primary and secondary references, the position is taken that one would have expected them to have comparable flame retarding qualities. Therefore, it would have been obvious to replace the organophosphonate of the primary reference with the organophosphate of the secondary reference, so as to arrive at the instant invention. It has been held that it is obvious to utilize a component for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244. Furthermore, it has been held that it is obvious to substitute one equivalent for another. *In re Ruff*, 118 USPQ 343 (CCPA 1958). Additionally, the teachings within Sicken et al. are considered to render obvious the use of hydroxyl functional oligomeric phosphate flame retardants, since the flame retardant would have been chemically incorporated into the polymer.

9. The examiner has considered applicants' response; however, applicants have failed to adequately rebut the examiner's arguments concerning the similarities of the respective oligomeric organophosphorus compounds, in terms of structure and function. The examiner has acknowledged that the respective oligomeric organophosphorus compounds of the primary and secondary references are not identical. The position is maintained that one of ordinary skill in the art would have expected the respective oligomeric organophosphorus compounds to function equivalently as flame retardants, given the respective disclosures of their use as flame retardants within polyurethane foams. Therefore, the argued presence of phosphonate groups is not considered to be sufficient to remove the rejection, absent a convincing argument or evidence

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that one would not have expected the respective oligomeric compounds to function as flame retardant equivalents. Applicants' response is not considered to be sufficient in meeting this requirement.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent  
September 21, 2005

  
RABON SERGENT  
PRIMARY EXAMINER